



INSIGHT on Coinage

Institute for Applied Numismatics and Research
P.O. Box 65494, Washington, DC 20035

EDITORIAL

Number 19

As the two year anniversary of this publication approaches (November 1992), I've decided to reprint my first editorial from Vol. 1, No. 1 to give my newer subscribers an idea of what Insight is all about and to remind faithful readers that I have not wavered from my original concept.

Why another newsletter? That's exactly the attitude that this publication seeks to foster in numismatists. An attitude of skeptical open-mindedness which takes nothing for granted and tests each new bit of information for its merit.

This is the information age. A beginning numismatist has probably a hundred times the resources available to him as we did thirty years ago. Most of the expansion of new knowledge has occurred in the last ten years. Unfortunately, there continues to be a great deal of misinformation in print.

This publication seeks to analyze ideas, to hold them up for debate and to make you LEARN BY THINKING. We will often propose new ways of viewing numismatic subjects or present alternative views in a column called "The Other Side of the Coin" [now called Advice and Dissent]. A commentary on articles and letters from the numismatic press will be found in "Between the Lines". Information which for whatever the reason was "Too Hot To Handle" by the major numismatic publishers will be covered; as well as original research and instructional articles on grading and authentication. Book reviews, interviews, and "Boo's and Gems", a collection of quotes taken from numismatists, will round out our newsletter.

We bear no malice toward any individuals, publishers, or organizations whose work we review and we wish to provide an open forum for alternative opinion ...

November 1990

This month's Advice & Dissent provides a prime example of my editorial concept above. It's an article to provoke your thoughts, and perhaps stir controversy. I invite your comments. Now, in the spirit of the month of spooks, witches and goblins, I'll start this issue with a BOO!

BOOS AND GEMS

There is one particular type of dealer you will need to contend with sooner or later as you attend shows looking for that special coin for your collection. You may be a variety collector or advanced collector putting together a "matched-set" of coins - whatever. As soon as you begin to look too closely at any of his stock of common "raw" coins in 2X2 boxes or vinyl pages, he will

announce that you are wasting both your time and his, because dozens of collectors have searched the coins looking for varieties and there is nothing "new" to be found. Often, this type of dealer will specialize in varieties and have his stock attributed in detail with Breen, Overton, etc. numbers. These dealers and their "attitude" only discourages new business and insures that I will not spend my money (even for a courtesy purchase) or share any numismatic information as to what I may actually be seeking - in this case, coins for my teaching collection.

Last month at the Blue Ridge Numismatic Association Show in Tennessee, I encountered such a dealer. After he practically suggested I look somewhere else for coins, he loudly told others near his bourse table that the "Cherrypickers Guide" has caused coin dealers their biggest problems since collectors tear stock pages and mix coins while looking for varieties.

I'm glad I didn't spend much time at his table because I found the coin featured in this month's "New Varieties" column at another dealer's table down the aisle!

ADVICE AND DISSENT

The purpose of this article is to show the importance of fluorescent light and microscopic coin examination. In past issues of Insight, I've written about magnification, lighting, and what circulation wear looks like on coins. I've been regularly giving readers and correspondence course students the tools to evaluate the views that will be presented in this article - which suggests some important omissions in one of the "landmark" coin grading books which I have strongly recommended you purchase for your numismatic library. My examples come from a book first published in 1986 as the N.C.I. Grading Guide, a step-by-step approach to the grading of uncirculated and proof coins by James Halperin. Newer editions of this book have sections dealing with the modern coin industry but the instructional content of the book remains the same. I've said before that this book is one of the best guides available because it explains many of the concepts of commercial grading practices. While I was never enthused about the "grading formula" Jim proposed for arriving at the Mint State grade of a coin, his photo's showing the prime focal points of coins as well as his technical discussion about grading principals rate high marks. Besides, who can argue with Jim's commercial success at putting his grading skills to work.

The subject of my September 29th Numismatic News column was the use of fluorescent light for coin authentication with a stereo microscope. In that article, I used two photographs to illustrate why fluorescent light is necessary. In case you are one of the unfortunate collectors who do not subscribe to BOTH Coin World and Numismatic News, I've reproduced that article with only the photo used to illustrate a coin's surface when viewed using fluorescent light (See REPRINT inside this issue).

Fluorescent light gives a soft, non-glare illumination which is necessary to examine surface irregularities or the subtle change of color from rubbing on coins. The light produces an unnatural,

Proper lighting an essential detection tool

The question of lighting for coin examination is very controversial because every collector and dealer has a personal preference. Unfortunately, few of those with a strong preference for a particular type of light have taken the time to experiment with alternatives.

Choosing the proper illumination

F. MICHAEL FAZZARI



is more complicated than finding a bright light source and placing it a certain distance from a coin. In fact, the correct lighting for coin examination depends on the equipment you are using and what you wish to see on a coin.

In this column, I'll concentrate on coin authentication with a microscope. The most expensive optical microscope in the world is useless without proper lighting.

As I mentioned in a previous column, when I was introduced to coin authentication at the professional level, I was given a fluorescent light to use with my stereo microscope. The light was nothing fancy, just a standard two-bulb desk model that can be purchased anywhere.

I made one modification. I cut a half circle of metal out of the rear of the reflector shade so the barrel of the microscope could be pushed closer to the light tubes without interfering with the lamp.

I learned this modification from my instructor, who was trained in authentication at the U.S. Treasury's department of technology. Next time you attend a major coin show you might look for this setup at some of the third-party grading or authentication services.

You'll need enough illumination to be able to see every detail of a coin's surface without washing out areas with too much light or glare. It's for that reason that fluorescent light is the only type of light to use for 98 percent of all authentication work.

The rare exception occurs at high powers (more than 30 power) when you wish to examine a particularly difficult mintmark for signs of alteration. Then, pinpoint, high-intensity halogen light is recommended.

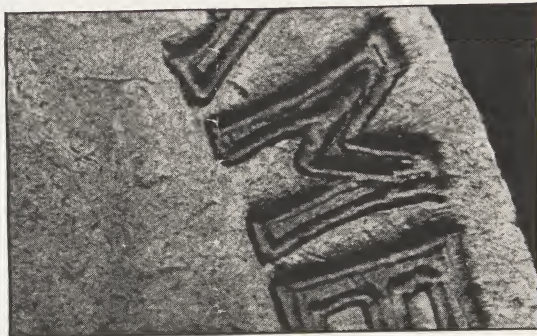
Do not purchase one of the fluorescent "ring light" accessories that come with some microscopes. They do not produce enough light.

The reason fluorescent light is ideal for examining coins with a microscope is quite simple. Fluorescent light is diffused light.

It illuminates the entire surface of a coin evenly, resulting in a "flat" appearance that makes all the details on the surface evident. Damage to a coin's surface will contrast to its natural areas.

Any defects from damage or tooling to a false die used to make a counterfeit will become evident by the way they blend with the coin's natural surface. Additionally, any abrasion or friction wear will contrast with the washed-out look of the coin's original surface in the reflected

Fazzari/Page 20



This photograph shows the surface of a counterfeit gold \$2.50 Indian illuminated by fluorescent light.

Fazzari/from Page 18

fluorescent light.

Surface alterations also show plainly with fluorescent lighting. There is no glare or hot spot to mask tooling of the surface or the subtle color changes that may indicate chemical alterations, improper cleaning or circulation wear.

The two photographs show part of the surface and incuse lettering found on one variety of a counterfeit Indian gold \$2.50. One of the diagnostics of this fake are the two lumps of raised metal on a diagonal below the left and right uprights of the letter "M" in "America."

Incidentally, this is an improved counterfeit. The raised blobs resulting from the wormy toolmark diagnostics, found on some older

fakes, were removed from the original counterfeit die.

As you can see, only one photograph is useful to identify the defects I am speaking about. The first shows the counterfeit's surface while using a 20-power microscope with fluorescent light. The second shows the counterfeit's surface using incandescent or halogen light. On the second the defects are nearly invisible.

F. Michael Fazzari is a former authenticator with the American Numismatic Association Certification Service and served as head of the authentication bureau of the International Numismatic Society. He currently instructs students on grading and authentication through the Institute for Applied Numismatics.

flat, even color to coins which takes time to become accustomed to and appreciate. The main complaint you read about using fluorescent light is that it hides scratches, hairlines, and bagmarks on coins making them look much better than they really are. This difference between various light sources, which gives fluorescent light its bad press, means that surface imperfections do not show with as much intensity or flash as they would have if viewed using halogen or incandescent light. The disparity is mostly true when viewing a coin using a low magnification hand lens because a microscope compensates for this, even at its lowest power. With a microscope, you still need to tip the coin back and forth in the light while rotating it in order to detect imperfections; but they are easy to see. By sacrificing light intensity, you gain an unparalleled view of a coin's surface. Cleaning, alterations, tooling, hairlines, and especially wear are easily detectable, even for a novice. Thus, by eliminating the glare and hot spots found with bright light sources which cause eye discomfort while masking the underlying surface problems, you are able to judge the true condition of the coin. In fact, this is the ONLY light set-up which will allow you to see many of the subtle surface alterations being done to coins today. After having studied coins using a fluorescent light and stereo microscope combination for many hours, you will be able to see most of the same imperfections and alterations on coins with a fluorescent light/hand lens combination - in spite of what the "Ex-perts" say.

Now, we are ready to discuss where I differ with some of the recommendations found in Jim's grading guide. Most of the locations which he illustrates as the high points of a coin's design and the places to look for wear are correct. For example, the high points and first areas of circulation on a St. Gaudens double eagle are exactly where the book shows - Liberty's breast and knee on the obverse and the eagle's breast and wing on the reverse. But there are also a few glaring errors which I'll try to explain away later. On the same page, the high points given for a Liberty double eagle are only partly correct. I would add the rounded tops of the stylized ribbons on the wings at either side of the shield and the knot-like decoration at the eagle's neck, right above the shield on the reverse. More importantly, on the obverse, before the points which Jim illustrated show ANY trace of wear, the small patch of hair curl under the last bead next to the "Y" on the tiara will be well worn! The wear then continues along the top of the horizontal hair curl toward the bun while at the same time wear starts to show on the eyebrow and cheek. Thus, the first area of wear on the obverse of this coin is not noted even though wear appears here while the cheek can still have full mint luster.

There are many similar revisions I would recommend for other coins. One of the easiest ways to learn the first areas of contact for wear on coins, even from a picture, is to look for either the shiny or dull areas. If you'll look at the photo's of the brown and red & brown copper Large cents in the chapter dealing with grading other series, you'll see a bright line of light contact traveling around the wreath stems on the reverse of the 1850 and 1855 cents. It's enlightening to look through the book and compare the areas of rubbing seen in the coin illustrations with the

locations of the red highlights used to show high points.

I believe a more important omission in this book concerns the Morgan dollar series which has been the backbone of the coin market for at least a decade. These coins are used as examples for Mint State grading by most authors. In the chapter on the grading process and again in the chapter on luster, the high points of Morgan dollars are accented in red. I have no argument with the reverse except to move the red spot on the belly higher, to the breast. The major omission is on the obverse. The location of the high point and the first area to always check on these coins for wear is NOT the cheek or neck; it's the tuft of hair curl just above Liberty's ear! The author also states that the areas in red are the areas which tend to lack detail if a coin is weakly struck or struck from worn dies - this is also NOT CORRECT except for the eagle's breast on the reverse.

How can an expert grader include these opinions in what with a few other exceptions is an excellent book? I believe that the answer is quite simple: The glare from the 60-100 watt incandescent bulb or tensor lamp which he recommends as perfectly acceptable for coin exam, masks the "true" high points of first wear on the Morgan (and many other coins). Commercial graders have never studied coins using a stereo microscope and fluorescent light. I believe it's for that reason that many of the correct locations for the initial first trace of wear on coins are still unpublished. I'm giving them the benefit of the doubt because if a grader were to ignore this area on a dollar, the first point to show wear, then coins which have a technical amount of wear down to AU-55, yet still show no rub on the neck or cheek, will pass as commercially acceptable Unc's! THIS IS THE BATTLE WHICH HAS BEEN FOUGHT AND WON BY COMMERCIAL GRADING INTERESTS OVER TECHNICAL GRADERS.

First area to look for wear
on Morgan dollars is shown
in black. See for yourself!



MICROSCOPICALLY SPEAKING

The most important requirement for coin authentication is to know what the genuine coin should look like. This is also becoming the most important requirement for grading. You must know what the natural surface AND the design of a coin should look like in order to detect the altered coins which are increasingly being seen at the grading and authentication labs. Especially dangerous are the chemical treatments to a coin's surface done to improve the eye appeal of coins or hide repairs. These alterations fool many experienced dealers and graders who rely on a hand lens to view coins. Remember, it was only two years ago that the major grading service Ex-Perts learned how to detect some of the "new" chemical alterations which we knew about five years earlier because of fluorescent lighting and stereo microscopes! Sometimes, in combination with a chemical alteration, the design of a coin is also

"improved" by reengraving or strengthening its line detail which is missing either due to circulation or strike weakness. The photo's below show alterations to the upper torso of a Walking Liberty half dollar and to the central bands on the reverse of Mercury dimes. After these coins were altered, they were chemically treated to dull down the fresh tooling of the metal. One common chemical used to dull silver by less sophisticated fakers is bleach. You may wish to experiment with different concentrations to see the results for yourself. If you have access to a chemical lab with an exhaust hood, the vapors of boiling chemicals will give better results but I don't wish to make "coin doctors" of you all. Suffice it to say that even commercially prepared silver dips will dull coins with repeated application. I've reported on this particular method and how it is used to hide scratches and bagmarks in the past.



The alteration to the dime is the better "job" of the two examples shown. On coins where some artistic skill is called for, such as the half dollar pictured, modern engravers, artisans, and amateurs usually fall short of the desired effect as can be seen by the crude workmanship on the coin in the photo. The most dangerous alterations of this sort were done in the past by skilled artisans. Some alterations to smaller coins defy detection even when the workmanship is poor.

When searching for expert alterations, it's necessary to have a genuine coin for comparison. Otherwise, the chance of detecting this form of alteration goes down as your familiarity with the coin series decreases. Other coins to watch for "old time" alterations are Large cents, Trade dollars, and Liberty Seated dollars. Toning and cleaning make detection harder but also should alert you to be more careful during your initial examination.

MARKET NOTES

I've heard reports that the coin market is beginning to stir a little and that "crack-outs" are alive and well. These are coins which have been removed from their slab and sent to another grading service for evaluation or even returned to the original service in hopes that the assigned grade will increase. Some of the labels from recent crack-out's I have seen are reproduced here.

It takes a fearless professional numismatist with a great eye for detail, experience, and a large amount of cash to risk breaking-out a high grade coin in search of an upgrade; but that is where the most profit potential is. At this writing, many dealer complaints suggest that the two major grading services are getting stricter with their grading (again) so you take a chance that many coins may be downgraded instead. I've heard a story that one of the major services downgraded a coin from MS-65 to MS-61 after the dealer resubmitted it trying for an MS-66! This could happen if a coin with great eye appeal actually turned out to be buffed upon reexamination. It's like the polished gold coins I saw in major grading service MS-67 slabs we discussed here a year ago. It has to do with the learning curve any person or organization must go through in order to grade and authenticate coins. Grading and authentication skills must be developed over time through study, comparisons, trial and MANY errors. I've been through the process and continue to learn how much more there is to know. The graders and authenticators at the four popular grading services (PCGS, NGC, PCI, and ANACS) know more on these subjects than all except a small percentage of "dealers' dealers" or serious numismatists; yet they are still not perfect.

I feel that in time, commercial grading should stabilize to COMPROMISE for a coin's commercial value and its actual condition of preservation. I believe in the years ahead, grades will move closer to a coin's technical condition as collectors learn that much of the eye appeal of many coins is artificial. Remember, if coins were graded technically, yet priced commercially, you would see AU-58, cleaned Bust half dollars selling for \$1200 and every one would be totally informed and happy with their coins. After all, that's an example of a coin series where "technically" uncirculated coins virtually don't exist (See Insight #18) and a large number of buffed, semi-prooflike AU's with great eye appeal and toning are selling for that now!

PCGS
1892-0 25C
MS64

5602 64/6477745

PCGS
1889-S \$S1
MS64

7194 64/6481125

PCGS
LONG ISLAND 50C
MS65

9322 65/2356977

PCGS
1872 25C
PR64

5571 64/9517723

PCGS
1883 5C
PR65

SHIELD
3838 65/6439013

PCGS
1889 5C
PR66

3887 66/4071747

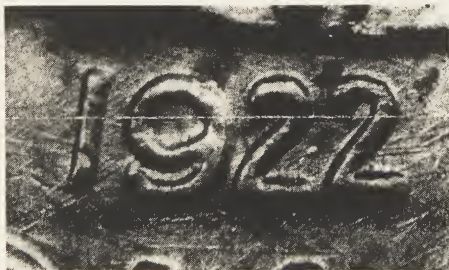
NEW VARIETY

At the Blue Ridge Numismatic Association Show last month I purchased an example of a coin variety which I had seen almost twenty years before while working at ANACS in Washington, DC.

In the early 1970's, while examining a 1922 No Star Grant Memorial half dollar, I noticed a hint of the remains of a star which revealed itself as a series of pointed depressions in the area where the incused star appears on the 1922 Grant Star halves. This October, I found a similar coin at the table of a friendly dealer who would have let me look for varieties on every coin in his case! While examining a Grant No Star coin, I noticed it also had the same star-like depression I had originally seen on the ANACS coin. Then, while tipping and rotating this coin for a better view of the depression, I found a "dot" which I had never noticed on any Grant halves. The dot is visible to the naked eye. It's too uniform and placed too perfectly in an insignificant area of the design to be a random die chip. I'm calling this new variety the "2 Dot 2 Polished-Star" and it appears on some 1922 Grant No Star half dollars. I'll confess that I have not been actively searching for these coins; so it remains to be seen how rare they are. I know of the existence of one other specimen. It was used as an example in the new ANA video, Grading Uncirculated Coins with J.P. Martin which I reviewed in my last newsletter!

I think the most interesting aspect of this variety is the dot which appears between the numeral 2's of the date (See Fig. 2). I believe this dot was added to the die to identify the "old" Grant Star obverse die - possibly a technical experiment by the Mint to see how long the die would last. The dot is centered on a diagonal die scratch between the numerals. This scratch also appears on the Grant Star coins and is one of the diagnostic markers I have used to link the dies. I also believe that a similar variety will be found on the 1922 Grant gold dollars.

Fig. 2: The new 2 Dot 2 variety 1922 Grant half dollar discovered by this writer.



I feel this coin is a noteworthy variety because many of the die polishing scratches on the obverse of the coin match those found on the 1922 Grant Star halves of which only 5000 were minted. In addition, a faint "star-like" depression appears in the field of

the 2 Dot 2 coin in the same location as the incused star on the Grant Star coins. Now, researches can prove that the raised star was polished off the die used to strike Grant Star halves and that it was put back into service to make some of the No Star coins.

I've sent a press release on the variety to both Coin World and Numismatic News.

BOOK REVIEW

I rarely get as excited about a new book as I have for Flying Eagle & Indian Cents by Richard Snow. As soon as the book arrived, it was apparent that its quality would continue on to the research and photographs inside. This is a real book, not a paperback. The author has brought the history of these two coin series and their patterns together in one place; loaded with photographs of major Flying Eagle and Indian Cent varieties.

If you are looking for a low cost, enjoyable series to collect (especially in the circulated grades) and enjoy the thrill of finding scarce coins - this book is all you'll need. While speaking to Rick about how much I enjoyed his book, he related that his research led to many new friendships and then to the formation of the Flying Eagle and Indian Cent Collectors Society (The Fly-In Club). I've seen an issue of the club's Journal and highly recommend joining if you collect these coins. The dues are \$15 per year. A list of the members includes some of the top numismatists in the country. Rick can be reached at a coin dealership he has started, Eagle Eye Rare Coins, 3848 E. 5th St., Tucson, AZ 85716 or (602) 323-9075.

For additional study of date positional varieties, you may also wish to purchase Indian Cent Date Varieties a pamphlet by Otto Steinberger in Hewitt's Numismatic Information Series; but at this time, most date position varieties are of no special value.

COMING

I'm spending much of my time in Tennessee at PCI because of the huge volume of coins they receive. I've sent press releases out on some of the doubled die coins we are finding each week - look for some of them to be published soon. It seems just about every date and mint coin exists with a true doubled die variety so I'll do an article on detecting these coins soon. Watch the next issue for my "Die-Scratch Method of Coin Authentication".

The Institute will have a table at the Suburban Washington/Baltimore Coin Show at the Baltimore Convention Center November 6-8 again this year thanks to Edward Kuszmar. I'm looking for another great turnout of collectors at one of the areas best shows. Stop by so we can meet you.

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